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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/550,409

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Norio Nagao

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ARENT FOX LLP

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WASHINGTON, DC 20036

EXAMINER

EDWARDS, LYDIA E

ART UNIT

PAPER NUMBER

1797

NOTIFICATION DATE

DELIVERY MODE

06/26/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

DCIPDocket@arentfox.com

IPMatters@arentfox.com

Patent\_Mail@arentfox.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/550,409	<b>Applicant(s)</b> NAGAO ET AL.	
	<b>Examiner</b> LYDIA EDWARDS	<b>Art Unit</b> 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/23/2005</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Toda et al. (WO/2002/064273) using (US 20040072331) as an English translation.

Regarding Claim 1, Toda et al. ('331) discloses a method of disposal of organic matter utilizing a solid/liquid two-phase circulation method by making at least a part of decomposed products of organic matter successively pass through a solid-phase reactor for decomposing by land microorganisms and a liquid-phase reactor for decomposing by aqueous microorganisms (Paragraphs 56-57 and 66-67), comprising the steps of: transferring a part of the matter inside the solid-phase reactor treated in the solid-phase reactor to outside the solid-phase reactor (Paragraphs 67 and 116), cleaning components dissolved in a liquid phase among the matter inside the solid-phase reactor transferred to outside the solid-phase reactor by using a cleaning liquid (Paragraphs 116-117), transferring the cleaned matter inside the solid-phase reactor back to the solid-phase reactor (Paragraph 117), putting in new organic matter to be subjected to the decomposing disposal in the solid-phase reactor or outside the solid-phase reactor so as to join the matter inside the solid-phase reactor (Paragraph 68), transferring the cleaning liquid used for cleaning the components dissolved in the liquid phase to the liquid-phase reactor (Paragraphs 124-132), taking out a solid substance generated in the liquid-phase reactor from the liquid-phase reactor and transferring the solid substance to the solid-phase reactor (Paragraphs 148-149), wherein, in the step of transferring a part of the matter inside the solid-phase reactor to outside the solid-phase reactor and the step of cleaning, 250 to 1000 ml of the matter inside the solid-phase reactor is transferred to

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outside the solid-phase reactor and cleaned per 1 kg of the new organic matter to be put in a day (Paragraphs 182 and 190).

Regarding Claim 2, Toda et al. ('331) discloses a method of disposal of organic matter wherein outside the solid-phase reactor is a cleaning portion (Paragraph 116 and Figure 2).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Toda et al. (US 20040072331).

Regarding Claim 3, Toda et al. ('331) does not explicitly state wherein the cleaning portion has openings having a size of not allowing passage of the matter inside the solid-phase reactor on a bottom of a container composing the cleaning portion. However, he does disclose wherein the matter on a bottom of a container composing the settling tank C (cleaning portion) is transported therefrom in a stopping shaft and during transportation, excess moisture (liquid) is discharged from the stopping shaft bottom holes (Paragraphs 148-149; Figure 4).

It would have been obvious to one having ordinary skill in the art at the time the invention was made that the holes of Toda were sized to prevent the matter from passing through given that he states that the solid matter after washing includes large moisture drops and during transportation, excess moisture (liquid) is discharged from the bottom holes [4] while the matter is urged to the top of the stopping shaft as to be transported back to the decomposer.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Toda et al. (US 20040072331) in view of Procida (US 6465707).

Regarding Claim 4, Toda et al. ('331) does not disclose a precipitation tank.

Procida ('707) discloses a precipitation plant which is used to precipitate inorganic substances from waste as to separate the solid and liquid wherein the liquid can be reintroduced into the process (Col 9, lines 38-53).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Toda with the method and precipitator of Procida in order to purge any inorganic substances from the liquid-phase decomposer that may be difficult to dissolve and may further contribute to clumping. Furthermore, the liquid in the liquid-

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phase decomposes needs to be purified of any inorganic substances since the decomposition is continuous and the liquid needs to be recycled back to the liquid-phase decomposer to continue the decomposition of new organic matter.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LYDIA EDWARDS whose telephone number is (571)270-3242. The examiner can normally be reached on Mon-Thur 6:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Griffin can be reached on 571.272.1447. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/LYDIA EDWARDS/  
Examiner  
Art Unit 1797

LE

/Walter D. Griffin/  
Supervisory Patent Examiner, Art Unit 1797